

Period of Noncompliance	Penalty Per Violation Per Day
1st through 14th day	\$250
15th through 30th day	\$500
31st day and beyond	\$750

59. All penalties shall begin to accrue on the day after the complete performance is due or the day a violation occurs, and shall continue to accrue through the final day of the correction of the noncompliance or completion of the activity. However, stipulated penalties shall not accrue: 1) with respect to a deficient submission under Section VIII (Work to be Performed), during the period, if any, beginning on the 31st day after EPA's receipt of such submission until the date that EPA notifies Respondent of any deficiency; and 2) with respect to a decision by the Region 4 Superfund Division Director, under Paragraph 53 of Section XVI (Dispute Resolution), during the period, if any, beginning on the 21st day after the Negotiation Period begins until the date that the EPA Superfund Division Director issues a final decision regarding such dispute. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Settlement Agreement.

60. Following EPA's determination that Respondent failed to comply with a requirement of this Settlement Agreement, EPA may give Respondent written notification of the failure and describe the noncompliance. EPA may send Respondent a written demand for payment of the penalties. However, penalties shall accrue as provided in the preceding Paragraph regardless of whether EPA has notified Respondent of a violation.

61. All penalties accruing under this Section shall be due and payable to EPA within 30 days of Respondent's receipt from EPA of a demand for payment of the penalties, unless Respondent invokes the dispute resolution procedures under Section XVI (Dispute Resolution). All payments to EPA under this Section shall be paid by check(s) made payable to "EPA Hazardous Substances Superfund," shall be mailed to EPA Superfund, U.S. EPA, Region 4, Superfund Accounting, P.O. Box 100142, Atlanta, Georgia 30384, Attn: Collection Officer for Superfund, shall indicate that the payment is for stipulated penalties, and shall reference the EPA Region and Site/Spill ID Number B407, the EPA Docket Number _____, and the name and address of the party making payment. Copies of check paid pursuant to this Section, and any accompanying transmittal letter(s), shall be sent to EPA as provided in Paragraph 47(c), and to Paula Painter, U.S. EPA Region 4, 61 Forsyth St., SW, Atlanta, GA, 30303.

62. The payment of penalties shall not alter in any way Respondent's obligation to complete performance of the Work required under this Settlement Agreement.

63. Penalties shall continue to accrue during any dispute resolution period, but need not be paid until 15 days after the dispute is resolved by agreement or by receipt of EPA's decision.

64. If Respondent fails to pay stipulated penalties when due, EPA may institute proceedings to collect the penalties, as well as Interest. Respondent shall pay Interest on the unpaid balance, which shall begin to accrue on the date of demand made pursuant to Paragraph 57. Nothing in this Settlement Agreement shall be construed as prohibiting, altering, or in any way limiting the ability of EPA to seek any other remedies or sanctions available by virtue of Respondent's violation of this Settlement Agreement or of the statutes and regulations upon which it is based, including, but not limited to, penalties pursuant to Sections 106(b) and 122(l) of CERCLA, 42 U.S.C. §§ 9606(b) and 9622(l), and punitive damages pursuant to Section 107(c)(3) of CERCLA, 42 U.S.C. § 9607(c)(3). Provided, however, that EPA shall not seek civil penalties pursuant to Section 106(b) or 122(l) of CERCLA or punitive damages pursuant to Section 107(c)(3) of CERCLA for any violation for which a stipulated penalty is provided herein, except in the case of a willful violation of this Settlement Agreement. Notwithstanding any other provision of this Section, EPA may, in its unreviewable discretion, waive any portion of stipulated penalties that have accrued pursuant to this Settlement Agreement.

XIX. COVENANT NOT TO SUE BY EPA

65. In consideration of the actions that will be performed and the payments that will be made by Respondent under the terms of this Settlement Agreement, and except as otherwise specifically provided in this Settlement Agreement, EPA covenants not to sue or to take administrative action against Respondent pursuant to Sections 106 and 107(a) of CERCLA, 42 U.S.C. §§ 9606 and 9607(a), for the Work and Response Costs. This covenant not to sue shall take effect upon receipt by EPA of the Response Costs due under Section XV of this Settlement Agreement and any Interest or Stipulated Penalties due for failure to pay Response Costs as required by Sections XV and XVIII of this Settlement Agreement. This covenant not to sue is conditioned upon the complete and satisfactory performance by Respondent of its obligations under this Settlement Agreement, including, but not limited to, payment of Response Costs pursuant to Section XV. This covenant not to sue extends only to Respondent, its affiliates, subsidiaries and successors, and does not extend to any other person.

XX. RESERVATIONS OF RIGHTS BY EPA

66. Except as specifically provided in this Settlement Agreement, nothing herein shall limit the power and authority of EPA or the United States to take, direct, or order all actions necessary to protect public health, welfare, or the environment or to prevent, abate, or minimize an actual or threatened release of hazardous substances, pollutants or contaminants, or hazardous or solid waste on, at, or from the Site. Further, nothing herein shall prevent EPA from seeking legal or equitable relief to enforce the terms of this Settlement Agreement, from taking other legal or equitable action as it deems appropriate and necessary, or from requiring Respondent in the future to perform additional activities pursuant to CERCLA or any other applicable law.

67. The covenant not to sue set forth in Section XIX above does not pertain to any matters other than those expressly identified therein. EPA reserves, and this Settlement Agreement is without prejudice to, all rights against Respondent with respect to all other matters, including, but not limited to:

- a. claims based on a failure by Respondent to meet a requirement of this Settlement Agreement;
- b. liability for costs not included within the definition of Response Costs;
- c. liability for performance of response action other than the Work;
- d. criminal liability;
- e. liability for damages for injury to, destruction of, or loss of natural resources, and for the costs of any natural resource damage assessments;
- f. liability arising from the past, present, or future disposal, release or threat of release of Waste Materials outside of the Site; and
- g. liability for costs incurred or to be incurred by the Agency for Toxic Substances and Disease Registry related to the Site pursuant to terms of the Multi-Site Agreement.

68. Work Takeover. In the event EPA determines that Respondent has ceased implementation of any portion of the Work, is seriously or repeatedly deficient or late in its performance of the Work, or is implementing the Work in a manner which may cause an endangerment to human health or the environment, EPA may assume the performance of all or any portion of the Work as EPA determines necessary. Respondent may invoke the procedures set forth in Section XVI (Dispute Resolution) to dispute EPA's determination that takeover of the Work is warranted under this Paragraph. Costs incurred by the United States in performing the Work pursuant to this Paragraph shall be considered Response Costs that Respondent shall pay pursuant to Section XV (Payment of Response Costs). Notwithstanding any other provision of this Settlement Agreement, EPA retains all authority and reserves all rights to take any and all response actions authorized by law.

XXI. COVENANT NOT TO SUE BY RESPONDENT

69. Respondent covenants not to sue and agrees not to assert any claims or causes of action against the United States, or its contractors or employees, with respect to the Work, Response Costs, or this Settlement Agreement, including, but not limited to:

a. any direct or indirect claim for reimbursement from the Hazardous Substance Superfund established by 26 U.S.C. § 9507, based on Sections 106(b)(2), 107, 111, 112, or 113 of CERCLA, 42 U.S.C. §§ 9606(b)(2), 9607, 9611, 9612, or 9613, or any other provision of law;

b. any claim arising out of response actions at or in connection with the Site, including any claim under the United States Constitution, the Georgia Constitution, the Tucker Act, 28 U.S.C. § 1491, the Equal Access to Justice Act, 28 U.S.C. § 2412, as amended, or at common law; or

c. any claim against the United States pursuant to Sections 107 and 113 of CERCLA, 42 U.S.C. §§ 9607 and 9613, relating to the Site.

70. Except as provided in Paragraph 67, these covenants not to sue shall not apply in the event the United States brings a cause of action or issues an order pursuant to the reservations set forth in Paragraphs 67(b), (c), and (e) - (g), but only to the extent that Respondent's claims arise from the same response action, response costs, or damages that the United States is seeking pursuant to the applicable reservation.

71. Nothing in this Agreement shall be deemed to constitute approval or preauthorization of a claim within the meaning of Section 111 of CERCLA, 42 U.S.C. § 9611, or 40 C.F.R. § 300.700(d).

72. Respondent agrees not to assert any claims and to waive all claims or causes of action that it may have for all matters relating to the Site, including for contribution, against any person where the person's liability to Respondent with respect to the Site is based solely on having arranged for disposal or treatment, or for transport for disposal or treatment, of hazardous substances at the Site, or having accepted for transport for disposal or treatment of hazardous substances at the Site, if:

a. the materials contributed by such person to the Site containing hazardous substances did not exceed the greater of i) 0.002% of the total volume of waste at the Site, or ii) 110 gallons of liquid materials or 200 pounds of solid materials.

b. This waiver shall not apply to any claim or cause of action against any person meeting the above criteria if EPA has determined that the materials contributed to the Site by such person contributed or could contribute significantly to the costs of response at the Site.

XXII. OTHER CLAIMS

73. By issuance of this Settlement Agreement, the United States and EPA assume no liability for injuries or damages to persons or property resulting from any acts or omissions of Respondent. The United States or EPA shall not be deemed a party to any contract entered into by Respondent

or its directors, officers, employees, agents, successors, representatives, assigns, contractors, or consultants in carrying out actions pursuant to this Settlement Agreement.

74. Except as expressly provided in Section XIX and Section XXI, nothing in this Settlement Agreement constitutes a satisfaction of or release from any claim or cause of action against Respondent or any person not a party to this Settlement Agreement, for any liability such person may have under CERCLA, other statutes, or common law, including but not limited to any claims of the United States for costs, damages and interest under Sections 106 and 107 of CERCLA, 42 U.S.C. §§ 9606 and 9607.

75. No action or decision by EPA pursuant to this Settlement Agreement shall give rise to any right to judicial review, except as set forth in Section 113(h) of CERCLA, 42 U.S.C. § 9613(h).

XXIII. CONTRIBUTION

76. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(2) of CERCLA, 42 U.S.C. § 9613(f)(2), and that Respondent, its affiliates, subsidiaries and successors are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for matters addressed in this Settlement Agreement. The "matters addressed" in this Settlement Agreement are the Work and Response Costs. Except as provided in Section XXI, nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands against any persons not parties to this Settlement Agreement for indemnification, contribution, or cost recovery.

77. The Parties agree that this Settlement Agreement constitutes an administrative settlement for purposes of Section 113(f)(3)(B) of CERCLA, 42 U.S.C. § 9613(f)(3)(B), pursuant to which Respondent, its affiliates, subsidiaries and successors have, as of the Effective Date, resolved their liability to the United States for the Work and Future Response Costs.

78. Except as provided in Section XXI, Paragraph 72 of this Settlement Agreement, nothing in this Settlement Agreement precludes the United States or Respondents from asserting any claims, causes of action, or demands for indemnification, contribution, or cost recovery against any persons not parties to this Settlement Agreement. Nothing herein diminishes the right of the United States, pursuant to Sections 113(f)(2) and (3) of CERCLA, 42 U.S.C. § 9613(f)(2)-(3), to pursue any such persons to obtain additional response costs or response action and to enter into settlements that give rise to contribution protection pursuant to Section 113(f)(2).

79. The Parties agree that Respondent, its affiliates, subsidiaries and successors are entitled, as of the Effective Date, to protection from contribution actions or claims as provided by Sections 113(f)(2) and 122(h)(4) of CERCLA, 42 U.S.C. §§ 9613(f)(2) and 9622(h)(4), for matters addressed in this Settlement Agreement. The "matters addressed" in this Settlement Agreement

are the Work and Response Costs. Except as provided in Section XXI, nothing in this Settlement Agreement precludes the United States or Respondent from asserting any claims, causes of action, or demands against any persons not parties to this Settlement Agreement for indemnification, contribution, or cost recovery.

XXIV. INDEMNIFICATION

80. Respondent shall indemnify, save and hold harmless the United States, its officials, agents, contractors, subcontractors, employees and representatives from any and all claims or causes of action arising from, or on account of, negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, or subcontractors, in carrying out actions pursuant to this Settlement Agreement. In addition, Respondent agrees to pay the United States all costs incurred by the United States, including but not limited to attorneys fees and other expenses of litigation and settlement, arising from or on account of claims made against the United States based on negligent or other wrongful acts or omissions of Respondent, its officers, directors, employees, agents, contractors, subcontractors and any persons acting on its behalf or under its control, in carrying out activities pursuant to this Settlement Agreement. The United States shall not be held out as a party to any contract entered into by or on behalf of Respondent in carrying out activities pursuant to this Settlement Agreement. Neither Respondent nor any such contractor shall be considered an agent of the United States.

81. The United States shall give Respondent notice of any claim for which the United States plans to seek indemnification pursuant to this Section and shall consult with Respondent prior to settling such claim.

82. Respondent waives all claims against the United States for damages or reimbursement or for set-off of any payments made or to be made to the United States, arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays. In addition, Respondent shall indemnify and hold harmless the United States with respect to any and all claims for damages or reimbursement arising from or on account of any contract, agreement, or arrangement between Respondent and any person for performance of Work on or relating to the Site, including, but not limited to, claims on account of construction delays.

XXV. INSURANCE

83. At least 7 days prior to commencing any on-Site work under this Settlement Agreement, Respondent or its contractor or subcontractor shall secure, and shall maintain for the duration of this Settlement Agreement, comprehensive general liability insurance and automobile insurance with limits of one (1) million dollars, combined single limit. Within the same time period, Respondent shall provide EPA with certificates of such insurance and a copy of each insurance policy. In addition, for the duration of the Settlement Agreement, Respondent shall satisfy, or

shall ensure that its contractors or subcontractors satisfy, all applicable laws and regulations regarding the provision of worker's compensation insurance for all persons performing the Work on behalf of Respondent in furtherance of this Settlement Agreement. If Respondent demonstrates by evidence satisfactory to EPA that any contractor or subcontractor maintains insurance equivalent to that described above, or insurance covering some or all of the same risks but in an equal or lesser amount, then Respondent need provide only that portion of the insurance described above which is not maintained by such contractor or subcontractor.

XXVI. MODIFICATIONS

84. The OSC may make modifications to any plan or schedule in writing or by oral direction. Any oral modification will be memorialized in writing by EPA promptly, but shall have as its effective date the date of the OSC's oral direction. Any other requirements of this Settlement Agreement may be modified in writing by mutual agreement of the parties.

85. If Respondent seeks permission to deviate from any approved work plan or schedule, Respondent's Project Coordinator shall submit a written request to EPA for approval outlining the proposed modification and its basis. Respondent may not proceed with the requested deviation until receiving oral or written approval from the OSC pursuant to Paragraph 84.

86. No informal advice, guidance, suggestion, or comment by the OSC or other EPA representatives regarding reports, plans, specifications, schedules, or any other writing submitted by Respondent shall relieve Respondent of its obligation to obtain any formal approval required by this Settlement Agreement, or to comply with all requirements of this Settlement Agreement, unless it is formally modified.

XXVII. ADDITIONAL REMOVAL ACTIONS

87. If EPA determines that additional removal actions not included in an approved plan are necessary to protect public health, welfare, or the environment, EPA will notify Respondent of that determination. Unless otherwise stated by EPA, within 30 days of receipt of notice from EPA that additional removal actions are necessary to protect public health, welfare, or the environment, Respondent shall submit for approval by EPA a Work Plan for the additional removal actions. The plan shall conform to the applicable requirements of Section VIII (Work to Be Performed) of this Settlement Agreement. Upon EPA's approval of the plan pursuant to Section VIII, Respondent shall implement the plan for additional removal actions in accordance with the provisions and schedule contained therein. This Section does not alter or diminish the OSC's authority to make oral modifications to any plan or schedule pursuant to Section XXVI (Modifications).

XXVIII. NOTICE OF COMPLETION OF WORK

88. When EPA determines, after EPA's review of the Final Report, that all Work has been fully performed in accordance with this Settlement Agreement, with the exception of any continuing obligations required by this Settlement Agreement, EPA will provide written notice to Respondent. If EPA determines that any such Work has not been completed in accordance with this Settlement Agreement, EPA will notify Respondent, provide a list of the deficiencies, and require that Respondent modify the Work Plan if appropriate in order to correct such deficiencies. Respondent shall implement the modified and approved Work Plan and shall submit a modified Final Report in accordance with the EPA notice. Failure by Respondent to implement the approved modified Work Plan shall be a violation of this Settlement Agreement.

XXIX. SEVERABILITY/INTEGRATION/APPENDICES

89. If a court issues an order that invalidates any provision of this Settlement Agreement or finds that Respondent has sufficient cause not to comply with one or more provisions of this Settlement Agreement, Respondent shall remain bound to comply with all provisions of this Settlement Agreement not invalidated or determined to be subject to a sufficient cause defense by the court's order.

90. This Settlement Agreement and its appendices constitute the final, complete and exclusive agreement and understanding among the Parties with respect to the settlement embodied in this Settlement Agreement. The parties acknowledge that there are no representations, agreements or understandings relating to the settlement other than those expressly contained in this Settlement Agreement. The following appendices are attached to and incorporated into this Settlement Agreement: (A) Action Memorandum; and (B) Cost Summary.

XXX. EFFECTIVE DATE

91. Grace has filed a petition for reorganization under chapter 11 of the U. S. Bankruptcy Code. On January 31, 2011, the Bankruptcy Court entered an Order confirming Grace's Chapter 11 Plan of Reorganization. The Confirmation Order is currently before the U. S. District Court for affirmance. In order to receive authority to carry out its obligations under this Settlement Agreement including, but not limited to, carrying out the Work to be performed, and paying EPA's Response costs, Grace shall file a motion for approval of this Settlement Agreement with the Bankruptcy Court within fourteen (14) days after the signature by all Parties in order to obtain permission to perform its obligations under the Settlement Agreement and to allow as an unsecured, Pre-petition, non-priority claim against Grace's Chapter 11 estate the EPA's Response costs. The allowed payment of EPA's response costs and any other payments due under or made pursuant to this Settlement Agreement shall be made pursuant to and in accordance with the date specified in Grace's confirmed Plan of Reorganization for the payment

of allowed claims. This Settlement Agreement shall not be effective and binding on Grace unless and until the Bankruptcy Court enters an Order approving this Settlement Agreement.

92. The effective date of this Settlement Agreement shall be the date the Bankruptcy Court enters an Order approving this Settlement Agreement.

The undersigned representative of Respondent certifies that they are fully authorized to enter into the terms and conditions of this Settlement Agreement and to bind the party they represent to this document.

Agreed this 12 day of April, 2011.

For Respondent W. R. Grace & Co.

By: W. M. Corcoran
W. M. Corcoran
Vice President Public and Regulatory Affairs

It is so ORDERED and Agreed this 5th day of April, 2011.
BY: Shane Hitchcock
Shane Hitchcock, Chief
Emergency Response and Removal Branch
Region 4
U.S. Environmental Protection Agency

EFFECTIVE DATE:

Appendix A
Action Memorandum



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

ENFORCEMENT ACTION MEMORANDUM

SUBJECT: Request for a Removal Action at the Zonolite Road Vermiculite Site (aka GAO 144 Site), Atlanta, Dekalb County, Georgia

FROM: Terry Stilman, On-Scene Coordinator
Emergency Response and Removal Branch

THRU: Shane Hitchcock, Chief
Emergency Response and Removal Branch

TO: Franklin E. Hill, Director
Superfund Division

CERCLIS ID: GAN000410399
Site ID Number: B407
Removal Category: Time-Critical Removal

I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of the proposed enforcement-lead time-critical removal action described herein for the Zonolite Road Vermiculite Site (the Site) located in Atlanta, Dekalb County, Georgia. The release of a hazardous substance at the Site poses a threat to public health and the environment pursuant to Section 104 (a) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that meets the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) section 300.415(b) criteria for removal actions.

As a result of Site conditions, removal actions conducted pursuant to Section 104 of CERCLA are necessary. W. R. Grace is the former owner and operator of the Site. This removal action is anticipated to be enforcement lead pursuant to an Administrative Order on Consent (AOC) with W. R. Grace.

II. SITE CONDITIONS AND BACKGROUND

A. Site Description

The Site is located directly adjacent to 1167 Zonolite Place, NE, Atlanta, DeKalb County, Georgia. Vermiculite Ore was reportedly processed at the Site.

1. Site Investigations

A removal site evaluation has been conducted at the Site by the Environmental Protection Agency (EPA) in response to an agency wide initiative to investigate vermiculite facilities that received vermiculite ore from the W.R. Grace vermiculite mine in Libby, Montana. The Site, also referenced as the "GAO 144 site" was the former location of a vermiculite expansion (or exfoliation) plant. According to W.R. Grace and other sources, the expansion plant operated from 1950 until 1970 and between 499 and 1,225 tons of vermiculite concentrate from the W.R. Grace vermiculite mine in Libby, Montana were shipped to the GAO 144 site. Also according to W.R. Grace, all equipment and buildings – except for an office building and a bath house – were reportedly removed and demolished in 1970. Historical aerial photographs, however, indicate that demolition of these buildings was conducted in phases beginning sometime between 1960 and 1968 and ending sometime between 1988 and 1993. The former office building, which is currently occupied by the Atlanta Soto Zen Center, is located on the eastern portion of the property and includes some paved areas for parking. Much of the remaining portion of the Site is either sparsely vegetated or heavily wooded. Presently the Site is used by residents in the area for recreational activities.

2. Removal Site Evaluation

During the Spring of 2010 (March 24, 25, and 30; and April 15) EPA and EPA's Superfund Technical Assistance and Response Team (START) contractor conducted activity-based air sampling (ABS) and bulk material sampling at the Site. The objective of the field effort was to evaluate potential human exposure risk from disturbance of materials potentially contaminated with asbestos. ABS was conducted to evaluate human exposure potential to asbestos released to the air during typical activities that may take place at a site such as raking and sweeping. Sampling at the Site occurred during or in association with the various disturbance-type activities and included collection of the following types of samples: air samples, bulk material samples (consisting of debris and soil) and vermiculite attic insulation (VAI) samples. Air sampling at the Site included collection of ABS samples and background air samples to quantify any background level of airborne asbestos. Quality control samples included field duplicate samples and lot blanks and field blanks associated with the air samples. Bulk material samples were collected in association with the ABS rounds and in other selected locations based on historical information.

Four rounds of ABS were conducted at the Site (March 24 and 25, 2010). Three of the ABS rounds involved raking as the chosen disturbance activity, and one round involved a combination of raking and sweeping. For each ABS round, air samples were collected from the breathing zone of the activity participants (i.e., those who raked or swept), as well as from an array of four stationary perimeter locations surrounding the area chosen for the activity. In addition, a bulk material sample was collected from the activity area after each ABS round.

ABS Round 1 (a raking activity) was conducted on the sparsely vegetated section of the Site that appears somewhat elevated above the surrounding terrain (the "plateau" area). This area was chosen to conduct an ABS round because, based on historical photographs, it is located in what may have been the western portion of the former vermiculite expansion facility.

ABS Round 2 (a combination of raking and sweeping) was conducted in the area located adjacent to the west side of the former office building of the vermiculite expansion facility (currently occupied by the Atlanta Soto Zen Center). Sweeping was conducted on an asphalt driveway and the raking was conducted on an adjacent patch of grass and bare soil.

ABS Round 3 (a raking activity) was conducted at the convergence of several pedestrian trails located in a heavily-wooded portion of the Site. This area was chosen because it is within the western end of where the former vermiculite expansion facility is believed to have been located, and because of the potential for pedestrian and bicycle traffic.

ABS Round 4 (a raking activity) was conducted in the area located along the northern boundary of the Site. This area was chosen because it is where a rail spur is believed to have been formerly located and it is also adjacent to (and possibly within) the footprint of the former vermiculite expansion buildings. The activity area is also down gradient from the elevated area within which ABS Round 1 was conducted.

Of the four ABS events, three rounds did not yield detectable concentrations of asbestos in the air samples collected. The only detection of asbestos in any ABS air sample – at the detection limit of the analytical technique – was for an air sample associated with ABS Round 1, collected in the area that appeared somewhat elevated above the surrounding terrain (the "plateau" area).

The preliminary analytical results for all bulk samples indicated either non-detect or trace (present but below levels that can be quantified) quantities of asbestos, except for two samples that reported low percentage levels of Libby amphibole asbestos (0.5 percent and 0.75 percent). These samples were also collected in the plateau area.

A Site visit was conducted on October 20, 2010 with invited members of EPA's national Asbestos Technical Review Workgroup in attendance. The group included members from EPA Region 8 familiar with Libby, MT vermiculite, members of the

Environmental Response Team (ERT) familiar with sampling efforts at sites that received vermiculite from Libby, and On-Scene Coordinators (OSCs) from other Regions that are familiar with the investigation of the Libby "sister sites." The draft data, historical information, and known current Site uses were presented to the team. Included in the input provided by the visiting group was a recommendation to conduct visual confirmation of the presence/absence of vermiculite below land surface in the soil plateau and surrounding areas.

On November 12, 2010, EPA OSC Stilman, EPA Toxicologist Fredericks and START conducted a Site visit to further investigate the plateau area within what is believed to be the former location of the vermiculite expansion buildings and processing and storage facilities; uneven mounds and concrete debris are also located in this area. The purpose of the Site visit was to excavate small test pits into the plateau and other areas on the Site to visually confirm the presence/absence of vermiculite beneath the ground surface. Test holes were excavated in several areas of the plateau and selected other areas of the Site. In the plateau area test holes, EPA visually identified vermiculite at depths ranging from less than 6 inches below ground surface (bgs) to somewhat deeper than 12 inches bgs. EPA did not observe vermiculite in any of the test excavations on other areas of the site. Based on these findings, EPA determined that vermiculite appears to be present below the land surface in the plateau area. The area where vermiculite is present is roughly estimated to occur in a zone about 175 feet wide by 250 feet long. The height of the plateau area appears to range from between about 0 feet to 6 feet above natural grade.

In a follow-up sampling investigation, EPA and W. R. Grace collected additional samples of the plateau on December 6, 2010. The results of the sampling confirmed Libby amphibole asbestos within the plateau. Soil samples collected in the subsurface of the plateau were found to have concentrations ranging from "no asbestos found to 2% tremolite. Asbestos was identified in each of the bulk samples of vermiculite from <1% to 2% tremolite.

3. Physical Location and Description

The Site is located approximately 4.5 miles northeast of downtown Atlanta, Georgia, in a developed urban area of mixed light-industrial, commercial, and residential use. The geographic coordinates for the Site are latitude 33.8053 degrees north and longitude 84.3422 degrees west. The site occupies about 16 acres, some or all of which was the former location of a vermiculite expansion plant. The Site is bordered to the south by Dalon Road, a landscape services and garden business, and the south fork of Peachtree Creek. To the west of the Site are Peachtree Creek and several residences. The Site is bordered to the north by railroad tracks and a complex containing numerous commercial and light industrial businesses. The eastern portion of the Site is occupied by the Atlanta Soto Zen Center; beyond the Zen Center lie additional light industrial and commercial businesses. Residential communities are located to the south beyond the

south fork of Peachtree Creek, to the west, and to the north beyond the railroad tracks. The nearest school, Briar Vista Elementary School, is located about 2,000 feet northeast of the Site. Emory University is located about one mile southeast of the Site. The Site is currently unfenced and there is evidence of both foot and bicycle traffic on the Site property, particularly in the undeveloped sparsely vegetated and wooded areas. Attachment 2 presents a figure showing the general Site layout. Attachment 1 presents a figure showing the Site location.

4. Site Characteristics

The site occupies approximately 16 acres, some or all of which was the former location of a vermiculite expansion plant. According to W.R. Grace, all equipment and buildings – except for an office building and a bath house – were reportedly removed and demolished in 1970. Historical aerial photographs, however, indicate that demolition of these buildings was conducted in phases beginning sometime between 1960 and 1968 and ending sometime between 1988 and 1993. The former office building, which is currently occupied by the Atlanta Soto Zen Center, is located on the eastern portion of the property and includes some paved areas for parking. West of the office building is a partially open area with some vegetation and trees. This area is where, based on historical photographs, it is believed the vermiculite expansion buildings and processing and storage facilities were located; uneven mounds, concrete debris, and the plateau area are located in this section of the Site. Further west, the Site is a heavily forested. A railroad spur is believed to have bordered the former vermiculite expansion facility along its northern perimeter.

Currently, DeKalb County owns part of the area occupied by the former vermiculite expansion facility. Citizens in the local community have made efforts to establish a park in this area, with walking trails extending through the wooded areas and along the south fork of Peachtree Creek. The Site is currently unfenced and there is evidence of both foot and bicycle traffic on the site property, particularly in the undeveloped, sparsely-vegetated and wooded areas.

The former vermiculite expansion plant was first constructed at the Site by Southern Zonolite Company in 1950; this company reportedly owned the property at that time. In 1957, Zonolite Company merged with the Southern Zonolite Company. In 1963, W. R. Grace and Company acquired the assets of the Zonolite Company, and continued to operate the expansion plant until 1970. According to W.R. Grace, the parcel was deeded to R. W. Sterrett in 1983. At some point in time, DeKalb County assumed ownership of a large portion of the property, while other portions of the original property are owned by other entities. According to various sources, between 499 and 1,225 tons of vermiculite concentrate from the W.R. Grace vermiculite mine in Libby, Montana were shipped to the Site.

A Site location map (Figure 1) and a Site layout map (Figure 2) are included as Attachments 1 and 2. Included in Attachment 3 are photographs of several of the test

holes excavated into the plateau area and adjacent areas during the Site visit made by EPA and START on November 12, 2010.

5. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant

Asbestos is a hazardous substance as defined by CERCLA 101 (14) and listed in the Title 40 of the Code of Federal Regulations (CFR), Section 302.4. There has been a release of Asbestos at the Site.

EPA's Framework for Investigating Asbestos-Contaminated Superfund Sites (EPA 2008) provides a step-wise process for evaluating risks associated with asbestos. The Zonolite Road vermiculite site is known to have used vermiculite from Libby, MT that is contaminated with a distinct form of asbestos. The "Libby amphibole" form of asbestos has been identified in environmental samples collected at the site. Identification of the Libby amphibole in environmental samples and the visual presence of vermiculite beneath the land surface in the plateau area is evidence that a release has occurred.

6. National Priorities List (NPL) Status

The Site is not on the NPL, and it is unlikely to be placed on the NPL in the future.

7. Maps, pictures, and other graphic representations

Maps, figures, and photographs are attached to this Action Memorandum.

B. Other Actions to Date

1. Previous Actions

Dekalb County has worked with EPA to limit access to the property, including the posting of warning signs along the property perimeter, pending the outcome of EPA investigations. Dekalb County has also helped facilitate community meetings with EPA to share information as it becomes available. Other than the activities mentioned above, no other government or private actions have been taken to investigate or mitigate the threats posed by the Site.

2. Current Actions

There are no current actions being taken by any party to address the threats posed by the Site.

C. State and Local Authorities' Role

1. State and Local Actions to Date

EPA continues to coordinate activities with the State of Georgia Environmental Protection Division (EPD). GA EPD leads oversight and coordination at mining Sites, while EPA has lead for vermiculite processing facilities associated with the Libby, Montana mine. GA EPD personnel continue to assist EPA with the ongoing investigation of the Site.

2. Potential for Continued State and Local Response

It is not anticipated that GA EPD or Dekalb County will perform any further response activities at the Site. The Emergency Response and Removal Branch (ERRB) will continue to coordinate with State and local agencies during the removal activities.

III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

A. Threats to Public Health or Welfare

Asbestos present in Site soils pose the following threats to public health or welfare as listed in Section 300.415 (b)(2) of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP):

Section 300.415 (b)(2)(i) Actual or potential exposure to nearby human populations, or the food chain from hazardous substances pollutants or contaminants; Vermiculite in both the expanded form and unexpanded form has been detected at the Site in the plateau area. Surface and subsurface soils, respectively, contain measured and presumed asbestos levels, based on visual identification and sampling. Though, based on ABS results, it appears that the risk posed by soil at the immediate land surface is minimal, the presence of visible vermiculite known to be associated with Libby amphibole asbestos indicates a threat of asbestos exposure should soils in the plateau area be disturbed. The potential for exposure is compounded by the fact that the Site is located in the midst of a densely populated urban area. Residential and commercial properties are located immediately adjacent to the Site, and it is known that the Site has been used for recreational activities, and given its location it is likely that such usage will continue. The route of exposure that represents the greatest health concern is the inhalation of airborne fibers, dispersed from soil by the action of pedestrian or bicycle traffic and/or wind action. In addition to the dispersion of fibers into the air, foot and bicycle traffic on these surfaces would be expected to facilitate the breakdown of the amphibole bundles into smaller and more respirable fibers over time, and may increase the potential for impact of both the adjacent residential and industrial communities as well as any trespassers. Asbestos is of concern because chronic inhalation exposure to

excessive levels of asbestos fibers suspended in air can result in lung diseases such as asbestosis, mesothelioma and lung cancer.

Section 300.415 (b)(2)(iv) High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate; Analytical and observable results reveal the presence of asbestos at or near the surface. Modification of the plateau area through grading, digging, or other means may create the potential for migration to off-site locations. There is no natural or man-made boundary to restrict asbestos contaminated soils from migrating off-site. A relationship between the concentration of asbestos in a source material (soil/asbestos containing vermiculite) and the concentration of fibers in air that results when the source is disturbed is very complex and depends on a broad range of variables. No method has been found to predict the concentration of asbestos in air reliably as it relates to a measured concentration of asbestos in the source material. A low concentration of asbestos in source material may, when disturbed, result in a high concentration of airborne asbestos. Future land use of the site will result in vigorous and routine disturbance of the soil in the plateau area. An action is warranted in the plateau area to prevent recreational gardeners using the public park from potentially elevated concentrations of airborne asbestos that could result from regular disturbance of the soil and asbestos-containing vermiculite present in the plateau. (See attached TSS memorandum).

Section 300.415 (b)(2)(v) Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released; Drought conditions such as Atlanta has experienced in the recent past and is likely to experience in the future may contribute to the potential for migration of asbestos-containing soils. Wind, action, particularly during dry conditions, can lead to migration of fine asbestos fibers from contaminated surface soil; particularly should the area become denuded of vegetation through natural or other means. On the other hand, heavy rainfall or other forms of runoff inducing events would also tend to wash the fibers from the surface soils onto the adjacent properties where they could also become airborne if left exposed.

Section 300.415 (b)(2)(vii) The availability of other appropriate federal or state response mechanisms to respond to the release; GA EPD has indicated that the State lacks available funds to implement a cleanup at the Site in a timely manner. If EPA Region 4 does not respond to this release, no other federal agency, state, or local government had the capacity to respond in a time-critical manner.

IV. ENDANGERMENT DETERMINATION

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare or the environment.

V. PROPOSED ACTIONS AND ESTIMATED COSTS

A. Proposed Actions

1. Proposed action description

The following actions will be implemented by W. R. Grace under an AOC:

- a. Coordinate with OSC to assess layout of Site and determine required Site activities, equipment, personnel and logistics and develop a Plateau Removal Action Workplan that details plans for the excavation.
- b. Excavate and remove areas of asbestos contaminated soils in the plateau area (elevated waste pile, approximately 175 feet by 250 feet) to native soil with confirmatory sampling.
- c. Backfill excavated areas with clean fill material, if necessary. In areas where asbestos is present at depths greater than two feet below the natural grade, place an appropriate warning barrier and cover such areas with clean soil to prevent direct contact with contaminated soils.
- d. Dispose of contaminated soils at an approved facility.
- e. Suppress dust and control erosion during the removal action.
- f. Monitor and sample as necessary personal and ambient air during the removal activities.
- g. Restore disturbed areas in a manner that prevents flooding of adjacent properties and is consistent with future land-use. Restoration shall be coordinated with the landowner.

2. Contribution to remedial performance

The proposed removal action is warranted to address the threats discussed in Section III, which meet the NCP Section 300.415 (b) (2) removal criteria. The removal action contemplated in this Action Memorandum would be consistent with any remedial action.

3. Engineering Evaluation/Cost Analysis (EE/CA)

This proposed action is time-critical and does not require an EE/CA.

4. Applicable or Relevant and Appropriate Requirements (ARARs)

On-Site removal actions conducted under CERCLA are required to attain ARARs to the extent practicable, considering the exigencies of the situation. Off-site removal activities need only comply with all applicable federal and state laws,

unless there is an emergency. This cleanup is being conducted as a time-critical removal action.

A letter to the State of Georgia requesting identification of State ARARs was sent on November 19, 2010. The On-Scene Coordinator will continue to coordinate with State officials to identify State ARARs and will evaluate such ARARs in accordance with the NCP.

All waste transferred off-site will comply with the CERCLA Off-Site Rule (40 CFR 300.440).

5. Project schedule

EPA is currently negotiating with W. R. Grace to undertake the removal actions outlined in this memorandum. The project schedule will be incorporated in the work plan submitted to EPA for approval under the AOC.

VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

If this response action is significantly delayed or not taken, the potential for disturbances that result in additional release will continue, increasing the potential for migration of asbestos and increasing the possibility of exposure to the public and the environment.

VII. OUTSTANDING POLICY ISSUES

Asbestos removal actions for "Libby amphibole" type material have been conducted by EPA at other locations around the country. This removal action does not set a precedent, but is considered nationally significant based on EPA's policy regarding CERCLA actions at Asbestos sites. This action is part of an agency wide initiative to investigate vermiculite facilities that received vermiculite ore from the W.R. Grace vermiculite mine in Libby, Montana. Because of the potentially broad impact of the vermiculite ore with high levels of amphibole asbestos mined from the Libby, Montana deposits, EPA Region 4 is coordinating with EPA Headquarters and other Regions to assure a consistent approach to vermiculite issues. There are no outstanding policy issues related to the proposed Removal Actions at this Site.

VIII. ENFORCEMENT

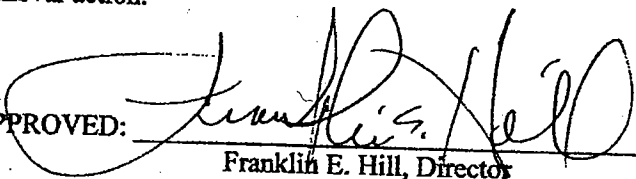
EPA anticipates that W. R. Grace will both fund and conduct the removal action. W. R. Grace is the former owner and operator of the Site. EPA has not identified any other PRPs and it is expected that W. R. Grace will be the sole PRP for this Site. EPA and W. R. Grace are currently negotiating the terms of the AOC for conducting the removal. Should negotiations

with W. R. Grace fail to result in an AOC, EPA may decide to take a fund-lead removal action. See Attachment, "Enforcement Confidential Addendum," for more detailed information.

IX. RECOMMENDATION

This decision document represents the selected removal action for the Zonolite Road Vermiculite Site located in Atlanta, Dekalb County, Georgia, developed in accordance with CERCLA as amended, and not inconsistent with the National Contingency Plan (NCP). The document is based on the administrative record for the Site.

Conditions at the Site meet the NCP Section 300.415 (b) criteria for a time-critical removal action.

APPROVED: 
Franklin E. Hill, Director
Superfund Division

DATE: 4/8/11

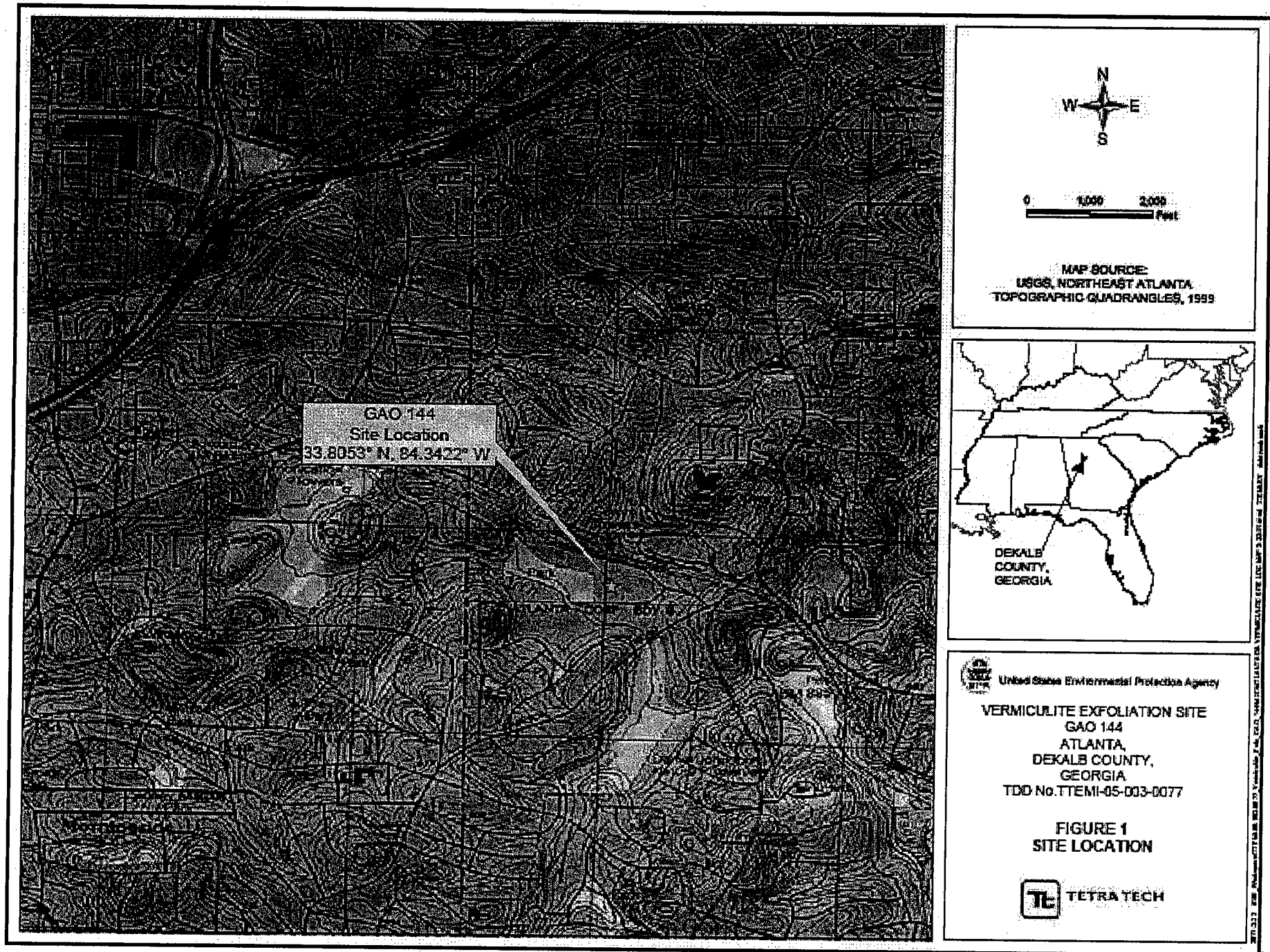
DISAPPROVED: _____
Franklin E. Hill, Director
Superfund Division

DATE: _____

Attachments

Attachment 1

Site Location



Attachment 2

Site Layout

